Meteorological records at Anatolia College, Merzifoun, Asia Minor.

1903.	Air pressure (in millimeters).					Air temperature (in degrees centigrade).									
	Average.	Maximum.	Date.	Minimum.	Date.	7 a. m.	1:45 p. m.	9 p. m.	Average.*	Average maxima.	Average minima.	Average daily range.	Absolute maximum.	Date.	Absolute minimum.	Date.
January	694.97	699.3	25	687.7	15	— 3.6	6.5	2.8	— 2.38	1.47	— 3.93	5.40	8.5	14	—13.5	26
February	695.5	703.5	26	686.2	16	— 5.95	2.89	0.96	— 1.14	3.9	— 3.4	7.3	10	24	—10.5	20
March	693	699.2	28	685	7	1.70	8.41	3.66	4.3	9.47	0.32	9.15	19.5	31	— 3.5	17
April	688.5	694.7	4	684.7	7	10.25	16.4	10.45	11.8	18.18	6.25	11.93	24	19	1.5	4
May	690.9	695.8	15	686.5	25	14.93	18.9	13.1	15	20.9	9.34	11.56	30	14	5.5	19
June	688.7	692.9	4	682.4	23	18.25	21.4	15.5	17.6	23.5	12.1	11.4	28	28	9.5	7
July	690.1	694	15	685.3	22	19.3	22.8	17.3	19.1	24.30	13.42	10.88	30	9	9	6
August	690.3	695	6	682.8	18	17.6	22.5	16.8	18.4	23.5	13.5	10	30.5	18	9.5	20
September	693.8	698.1	5	688.5	11	13.1	18.4	12.8	14.3	19.2	8.9	10.3	28	16	2.5	28
October	692.5	697.2	15	685	11	8.92	15.9	11.5	11.9	16.6	6.9	9.7	23	8	1	23
November	693.9	699.7	2	684.4	23	2.9	8.15	4.8	5.2	8.6	2.2	6.4	14	22	— 4.5	27
December	693.4	700.3	22	685.5	9	2	6	3.1	3.5	6.5	1.3	5.2	11.5	11	— 3	5
Annual	693.8	697.5	.....	685.5	.....	8.28	14.02	9.4	10.3	14.68	5.57	9.11	30.5	.....	—13.5	.....

1903.	Cloudiness, 0-10.						Precipitation.					Wind, number of observations with—								
	7 a. m.	1:45 p. m.	9 p. m.	Average.	Clear days (less than 2).	Cloudy days (more than 8).	Total.	Maximum.	Date.	Days with 1 mm.	Days with more than 2 mm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
January	6.8	6.7	5.4	6.3	8	15	20.2	5	18	2	5	1	40	8	1	3	3	3	5	29
February	4.8	5.2	4.1	4.9	8	7	7.9	2.2	23	4	1	3	35	4	0	2	7	4	6	23
March	4.7	5.4	3.8	4.6	11	8	35.2	13	12	5	3	2	40	3	5	0	8	0	1	34
April	4.1	5.4	4.3	4.6	8	4	20.7	8.7	26	4	5	3	21	2	8	2	13	4	2	35
May	4	6.2	5.3	5.2	5	9	87.1	19.8	6	4	8	4	29	1	1	0	9	0	4	45
June	4.3	5.5	4.6	4.8	6	5	95.1	24.4	14	6	10	3	31	3	2	0	14	0	1	36
July	3.9	3.8	1.9	3.2	14	3	25.2	6	6	1	5	22	32	4	0	0	2	1	0	32
August	4.4	3.8	2.6	3.6	12	3	73.3	25.6	6	1	5	23	21	1	0	0	1	1	0	46
September	3.6	2.1	2.8	2.8	15	1	10.7	10.7	11	0	1	13	29	0	0	1	0	0	1	46
October	3.4	3.6	3	3.3	17	3	33.7	20	31	1	3	15	4	0	0	0	2	0	0	72
November	6.6	6.7	5.4	6.2	4	11	38.8	14.8	14	1	5	13	2	0	0	0	0	0	0	75
December	8.1	9.2	7.5	8.2	1	20	25.1	7	31	3	4	2	0	0	1	0	0	0	1	89
Annual	4.9	5.3	4.2	4.8	109	89	482.0	.....	.....	32	54	104	284	26	18	8	59	13	21	562

NOTE.—The decimals are printed as in the original manuscript. Unfortunately, the total number of rainy days is not given. *1/3 (7 a. m. + 1.45 p. m. + 9 p. m.).

REMARKS ON BIGELOW'S STUDIES ON THE CIRCULATION OF THE ATMOSPHERE.

By Prof. A. WOEIKOF, dated St. Petersburg, Russia, March 1, 1904.

The best means to detect an influence of a change of solar radiation on the temperature of the atmosphere would be the difference of pressure between tropical heights and the lowlands at their base, as has been shown by Hann. The pressure differences would depend not only on the temperature of the whole air stratum between the pairs of stations, but also on the quantity of vapor, for as the Tropics have a great percentage of water surface a larger evaporation would result from a greater quantity of solar heat, and the effect on the temperature of the lower stratum would be marked in some cases by increased cloud and rain. Unfortunately there are few mountain or even plateau stations of the Tropics with long records. India and Ceylon would alone be available, but in that region there are stations covering the years 1873–1900 which Professor Bigelow uses. For a shorter period nearer to our time the stations in Peru and Hawaii would be available. As the tropical high stations are few and their importance is great, it would be worth while to make all the calculations necessary to give a true mean; the reduction of different hours of observation is facilitated by the very great steadiness of the daily variations of pressure in the Tropics, so that the reduction factor from hourly observations in the lowlands could be used, taking into account the diminution of pressure with altitude. I hope these remarks will not be taken as a disparagement of the excellent work of Professor Bigelow, but simply as a suggestion for a future extension.

THE VERTICAL COMPONENT OF THE WIND.

By Rev. MARC DECHEVRENS, S. J., Director of the Observatory of St. Louis, island of Jersey, England, dated March 1, 1904.

In the MONTHLY WEATHER REVIEW for November, 1903, page 536, there is an interesting note in which the Editor speaks of the vertical component of the movements of the atmosphere. It concludes with the following remarks:

It is very desirable that we should have both demonstrations and measurements of the rate of ascent and descent of currents of air. * * * Any contribution to the subject of the vertical component of atmospheric motions will be welcome to the meteorologist.

Previously, in the Editor's "Treatise on meteorological apparatus and methods," in 1887, he described an inclinometer of my invention, intended to measure the angle of the wind with the horizon, but said nothing of the anemometer with which, in 1887, I replaced this very defective vane. This anemometer fulfils the wish which he expressed to see an anemometer of rotation substituted for the vane.

I put it in operation at the Observatory of Zi-Ka-Wei, China, in 1896 and 1897. After my return to Europe I installed it in 1894 at Jersey, under conditions according well with those which the Editor demanded, in 1887, to ensure observations of real utility:

> Only in a level country or at sea, with a vane (or better an anemometer of rotation) established upon a very high tower, can we feel assured that the results of vertical measurements will be of meteorological importance, and that general currents, vertical or inclined, are really the subject of observation.

Jersey is a rather small, level island at the mouth of the English Channel, and the steel tower, of which I send a photograph, fig. 1, intended for the exposure of the anemometers, was erected on a hill of 55 meters, near the shore; it is, itself, 50 meters high, and the anemometer rises above it 6 meters, so that the total elevation of the anemometer is 111 meters.

Besides the picture of the tower I send also one of the Dechevrens universal anemometer, fig. 2. I had conceived the idea of it in China, and succeeded in having it constructed by the firm of Richard, at Paris. It analyzes the movement of the air in the same manner that a complete magnetograph analyzes the magnetic condition of the earth; it measures at the same time the direction of the wind and the two components, horizontal and vertical, of its velocity. In order to get the horizontal component I have substituted, for the hemispherical cups of Robinson, straight semicylinders, which you will easily distinguish in the